

Paper presented at the WELLCHI Network Conference 2

**Well-being of children and labour markets in Europe
Different kinds of risks resulting from various structures and changes in the labour
markets**

Centre for Globalisation and Governance, University of Hamburg

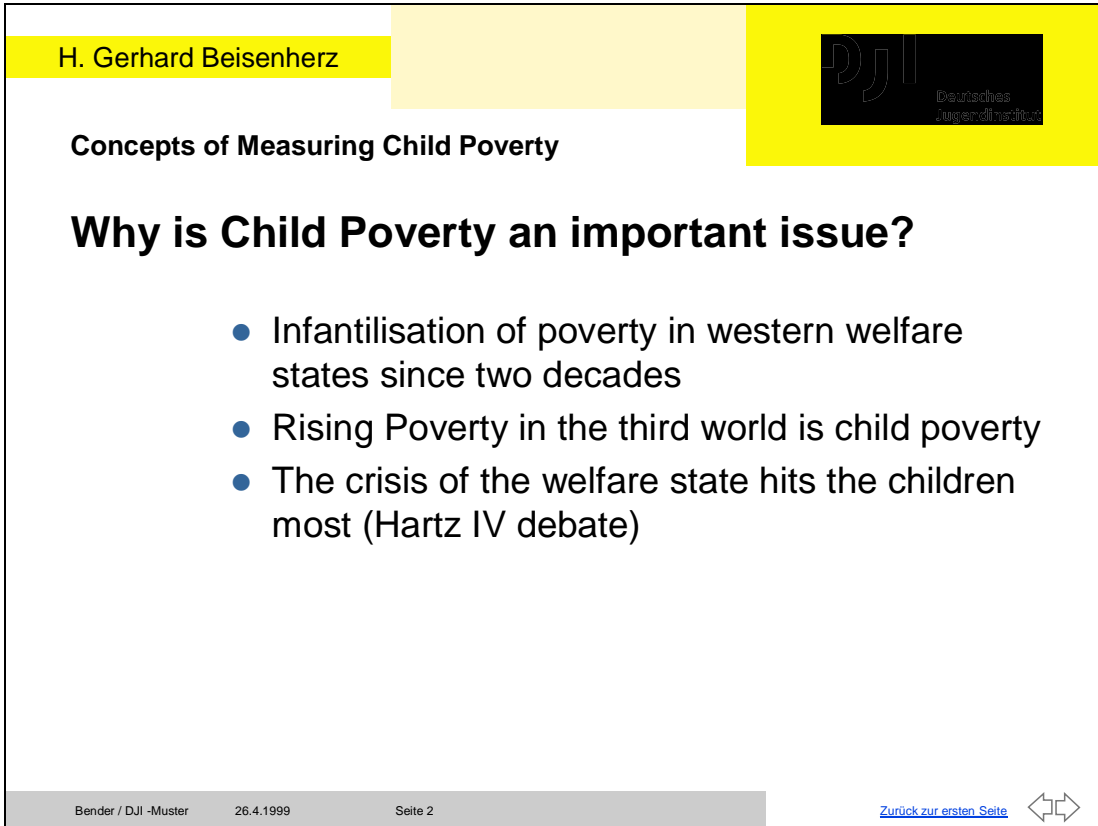
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Concepts of Measuring Child Poverty

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Slide 1



The slide features a yellow header bar with the author's name 'H. Gerhard Beisenherz' on the left and the DJI logo 'Deutsches Jugendinstitut' on the right. The main content area is white with a black border. The title 'Concepts of Measuring Child Poverty' is in bold black text. Below it, the question 'Why is Child Poverty an important issue?' is also in bold black text. A bulleted list follows, containing three points. At the bottom, a grey footer bar contains the text 'Bender / DJI -Muster 26.4.1999 Seite 2' on the left and a blue link 'Zurück zur ersten Seite' with a double arrow icon on the right.

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Concepts of Measuring Child Poverty

Why is Child Poverty an important issue?

- Infantilisation of poverty in western welfare states since two decades
- Rising Poverty in the third world is child poverty
- The crisis of the welfare state hits the children most (Hartz IV debate)

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The rise of child poverty is well known and you heard about this in the other talks this morning or afternoon, so that I can restrain from giving you numbers. Easily available sources


for this are in Germany e.g. the 12. Kinder und Jugendbericht der Bundesregierung, der Datenreport, z.Z. in the Update version von 2005, reports from UNICEF like Innocenti Research Centers, Working Paper 2-2005 "Child poverty and changes in rich countries since 1990" or the regular statistics reports from Eurostat, "Statistik kurzgefaßt, Bevölkerung und soziale Bedingungen", which can be found under the Internet web side of eurostat. For the transition states, which show very dramatic rises of poverty after the advent of the free market society, you find information in the reports of the MONEE Project, to be found on the UNICEF web side <http://www.unicef-icdc.org> too.

The development of poverty in the developing countries or "third world" is monitored by UN, UNDP, World Bank and IMF. The development in those countries is a matter of controversial debate due to the different development between the countries monitored and due to the difficulties to assess the inner state development of inequality by the widely used instruments of income poverty threshold. It is however accepted, that poverty in the developing regions is for the biggest part child poverty. Two factors are responsible for that: Mostly at least 50% of the population are younger than 18 years, and second: poverty hits women more than men, so that mediated by mother poverty you find high rates of child poverty.

The third factor is relevant for the ongoing program of reducing if not eradicating child poverty in the EU. This programmatic aim should be reached by provisions taken by european governments under the scrutiny of NGO's like the EPN and national agencies, like the "Armutkonferenz". It is only three day's that the German National Poverty Conference at Berlin claimed that after the installation of Hartz IV into practice the number of children living in poverty raised from some million to 1.5 Million. One of the points in criticizing HARTZ IV concerning the boosting of child poverty is the abolition of special need entitlements by this reform, which is not suited for mothers with little children. Another point is, that the "Regelsatz", that is the lowest level of income you are assumed to be able to live with in a decent way, corresponding to human dignity, is too low to reach this goal.

This are some reasons, not all of them, why child poverty matters so much today. Of course this issues are only the starting point, for the main concern is about the consequences of child poverty, which can not be regarded in this short talk.


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Concepts of Measuring Child Poverty

Why must poverty be measured?

- Poverty is an issue of comparison between countries and in time
- Interest in poverty goes to comparing different groups of society
- The aim of the comparison is the evaluation of the economic and social welfare policies
- Comparing relies on numbers, numbers results from measurement

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Different international organisation like OECD, UN, EU and their research or statistic groups publish a growing number of comparisons of poverty rates between different states. Compared are the rates of overall poverty, of different groups like children or women or the old one. You have seen some of those statistics already this morning and you will certainly see some more, for they are the hand tool for a big part of poverty research. These statistics are a part of monitoring the development of those countries reported on. The monitoring serves to compare the actual state of the social situation in different countries, formed by the state specific mix of work-policy, social policy and degree of economic development. You will hear some talks from this perspective in this conference. Beside synchronous bench marking by poverty rates you will find time series of poverty rates as well. This time series will mainly be used to monitor the development of poverty and poverty distribution within a given state and between certain regions or groups within. In Germany you will find them e.g. in the “Armutserichte der Bundesregierung” or in the Datenreport. They are mainly used to legitimate or to criticise actual or former policy and therefore this number and their interpretation are often a matter of hot political debate.

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The mainly used methods of poverty-measurement

- Poverty as
 - Poverty index for a country, measured by a combination of fundamental indicators as longevity, mortality after birth, literacy rate, minimal food etc. (UNDP HPI)
 - Poverty as insufficient income, politically defined as limit for entitlements (e.g. Sozialhilfe)
 - Income, relative to the context of a given income distribution (EU-method, OECD)
 - Poverty, measured by an daily income less then 1\$ PPP (World bank, IMF)
 - The sum of several deprivation indicators in the material , cultural and social sphere


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The comparison of poverty rates of whatever kind clearly needs numbers to compare. My task today is only to explain by which methods you transform information about poverty into numbers of poverty, which kind of number you get by the mostly used methods and which problems are inherent into the measurement methods. That means first that I'm not dealing with the whole range of poverty concepts you can find in the very broad discussion about poverty on the globe. Therefore concepts, which are not giving advise – at least up to now – to some kind of measurement, are not treated here thou they may be from an theoretical point of view the most challenging one like Sen' capability approach or the concept of social exclusion (For a broader review about poverty concepts see Minujin/ Delamonica 2005; Townsend 1971, Oyen 2005, Volkert u.a. 2003 and with special regard of rich countries Corak 2005) .

The definition of poverty by entitlements is somehow between concepts without corresponding measurement advice and measuring concepts. On the one hand the limits are calculated on the basis of certain defined baskets or expenditures of certain groups of society, on the other hand they are strongly influenced by political debates about what should be included in the empirical investigation of the basic need expenditure. Normally it is a complicated statistical procedure under heavy political pressure. Therefore I cannot deal with this subject in my talk and I confine myself here to the following: I will present the method of measuring poverty rates by the income distribution curve in a given population. It is the most often used method, which I call therefore the Standard Method. Then I shall present as the

main alternative with a chance of defining child poverty in a child specific way the main elements of measurement of child poverty by an deprivation index.


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Concepts of Measuring Child Poverty


Elements of the Standard-Method of poverty measurement

- Calculation of net income of the household
- Counting number and age of person, belonging to the household and fixing equivalence factors.
- Defining a territorial basis of income aggregation
- Determining a cut-off boundary for the poverty state

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In spite of the many criticisms against the use of income as an measure for poverty, the determination of poverty by determining the income of individual household is certainly the most widely spread method of poverty measurement. This method is not only the source of the poverty rates you encounter in statistics of e.g. EU or OECD. Even the poverty rates in the country ranking of UN, WB or IMF statistics, which use the 1\$ per head/day criteria – or now sometimes up to 2\$/day - is based on this method, as the amount of \$/day, which marks poverty and is taken as poverty line, is calculated from samples of income-distribution poverty lines in a basket of poor countries. This standard method of poverty measurement consists of four steps, which we will discuss shortly: The four steps are indicated in the power point above.


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Concepts of Measuring Child Poverty

Some problems concerning the measurement of net income

- Getting correct answers about all kind of income
- To have the income contributed by the people in the household not asked themselves
- Be sure to cover all fixed expenses, which lower the real disposable net income
- How to handle the different rent for housing
- What to do with fixed extraordinary expenses e.g. due to handicaps

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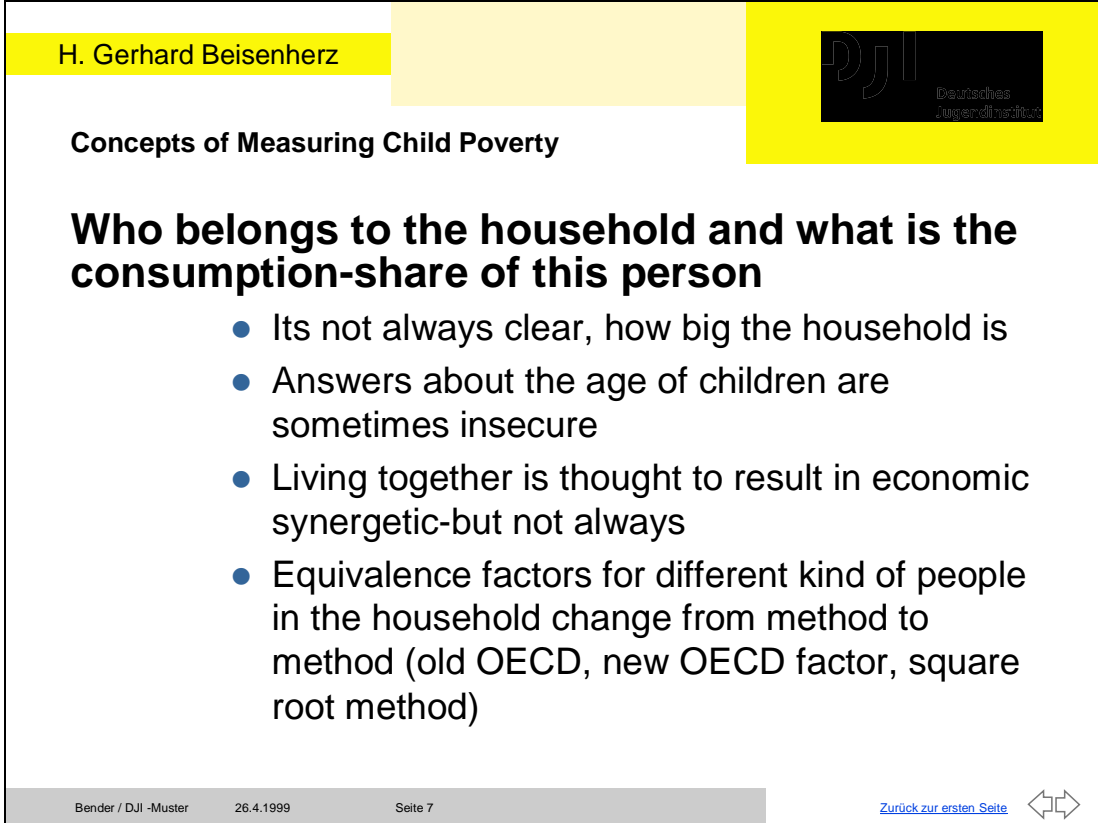
The income should include all kind of direct income from all possible sources as work, rent, dividends, social transfers and indirect ones, e.g. by reductions of tariffs due to low earning-income. It is known that very high and very low income groups do not adequately answer questions concerning income. The former due to tax problems, the other due to fear of risking social aid entitlements. Indirect incomes are a problem too, as they depend heavily from the use of subsidies goods and the degree of it is mostly not clear to the user. E.g.: If you have to pay a reduced fee for child care in kindergarten you know the fee you pay, but very often you don't know the normal fee. In the same way traffic fee reductions for poor people, families or children are difficult to take into account.

The second point concerns the income of the partner, if you have an inquiry which confines to ask only one adult in the household. Only if people have time and mood to look on their last tax declaration, they will find the adequate net income of both partners, even if somehow manipulated. But even children may constitute a problem for exact household income if they are older and living with the parents. There are strategies of hiding the income from out of school work, which are not well known, as the phenomenon of school paralleling work is not very good investigated.

Fixed expenses are a problem too, for they reduce the net income by an amount, which often cannot be used for the actual life performance (Lebensführung); e.g. expenditures for insurances, which cover future risks but do not contribute to actual life, as long as the risk does not realize. It is a matter of poverty concept, if you should subtract expenses for

insurances from actual income or not, to include the feeling of uncertainty into the concept of poverty or not. Looking at a purely material poverty concept, it should be subtracted, favoring a concept incorporating psychological well feeling, it could play an important role.

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Concepts of Measuring Child Poverty

Who belongs to the household and what is the consumption-share of this person


- Its not always clear, how big the household is
- Answers about the age of children are sometimes insecure
- Living together is thought to result in economic synergetic-but not always
- Equivalence factors for different kind of people in the household change from method to method (old OECD, new OECD factor, square root method)

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It seems to be an eurocentric view that a household is well defined unit of statistical investigation. In many parts of the world and even in some parts of western cities or on the countryside – e.g. on some parts in eastern Europe – the boarder of an household is unstable in social regard and rapidly fluctuating in time. Even the age of children sometimes is not answered in a correct way, as we experienced in our DJI Kinder-panel, which was conducted in Germany between 2002 and 2005. Not only fathers but even mothers sometimes give confusing answers about the age of their children.

The main assumption behind the normalisation of household-income by some factor, being a function of the number and the age of the person in the household, is the imputation of a big scale effect for the household economy. But there are a lot of examples to be found, in which this assumption is wrong, take e.g. the transition from a student life alone in a flat sharing community to a single mother in an two room apartment. That means, the big scale effect in such cases leads to a factor higher than the number of persons, which of course is never taken into account. Second: If there is a big scale effect, it can be very different for the different cases, as is indicated in the next presentation.


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Some critical points concerning the equivalence factors (e.f.)

- There is a historical dynamic in the internal family income distribution
- Equivalence income reduction works with the strong assumption of income-independent equivalence factors
- The e. f. are assumed to be independent from the number of persons in the household
- The empirical and statistical basis for the e.f. is slim

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Two factors should strongly influence the distribution of income in the family. First gender equality should contribute to the rise of the expenses for the second adult in the household. Therefore the factors should depend on the degree of practical gender equality in day to day life. Second The rise of the importance of the child for the family by decreasing numbers of children in the household should modify the relative economic relevance of the child. This is connected with an ever increasing cost of education and schooling in western countries. This trend is different in different countries, therefore the factors could be different in different regions. It can, as we experienced in Europe during the last twenty years or so change rather rapidly, affecting time series with poverty rates.

The part of the family income, which children need, certainly is different in different social stratum. The point to be kept in mind is, that with rising income bigger parts of it are taken for asset building. This is a behavior serving all family members in the same way or sometimes even more to the children, if they later on are the heirs of the assets. From the money which is spent, children in better off households certainly get a bigger part than in low income households. The older they grow the more they are busy with consumption. Part of this problems are tackled with by taking the median instead of the mean of the income distribution curve, in so far as the internal distribution in the upper part of the curve has no influence on the median. The main problem here could be with the single mother with one child, when she spends an much higher part than 3/10 of her spending for the child alone. If

you look to the “Regelsätze” of german social aid, which allegedly are empirically based, this in most cases should be true.

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Child related insufficiencies of the equivalence factor reduction method

- There is no place for additional synergetic for the second, third, forth and so on child
- It is assumed, that all siblings are treated by the parents economically in the same way
- Transfers from outside the household directly to the child (e.g. gifts by grandparents) are difficult to be taken into account
- There is no way to treat different children according to their power-position in the household

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Poverty as a relational concept: Relational to what?


- Forming the income distribution curve: Which values will be aggregated?
- The requirement of homogenous prices in different regions covered by the aggregation area
- The problem of differences in social provisions by the community or the local authority, especially for children
- The degree of subsistence economy may be different in the aggregation region

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The definition of an renormalized household-income distribution curve needs the fixation of an territorial basis on which to aggregate the incomes. This in most cases is the territory of some national state, sometimes of some state within the national state. This makes sense, if the state is small enough to have rather homogeneous living conditions and price levels. In most cases this is not the fact, so you will find very different poverty rates depending on taken one territorial basis or more, as is well known for Germany after reunification. Taking the income curve separately for east and west gives very different results than taking one for Germany as a whole. This is true for UK too, if you look for example on Scotland, using a separate income curve instead of the distribution for UK. But even in small states this assumption may be false if you have big income differences between one central city and the rest. In the countryside you can find a much higher degree of subsistence-economy alleviating the monetary need and giving too high numbers about poverty, compared to living conditions in the city.

The child specific social provisions of the community may differ even from one town to another within the same region depending on cultural tradition, political constellation and economic well-being. The monetary worth of this provision is hardly to be judged.


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The cut-off poverty line: What follows for the poverty concept?

- The standard model makes poverty a dichotomous concept
- Median or mean as relational point of the distribution: The consequences of the choice
- Which boundary as poverty line? 40, 50, 60%?
- How to make corrections to the dichotomous concept of poverty?

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That poverty should be a dichotomous variable is an old concept. E.g. it is to be found in the old definition of Simmel, that the poor is a person which needs and merits public aid. To help is a matter of decision: You may help, or you may not help. Contrary to income or even to social stratum poverty is a dichotomous kategorie. Someone is called poor or not poor. On the other hand it is not a dichotomous concept relating e.g. to something as class theory. That means, it is much more a phenomenological concept than a concept with some social theory underpinnings or connotations. Connecting poverty and exclusion would be a more ambitious undertaking to understand poverty on a system theory level and the capability approach gives hints to an understanding in the frame of action theory. But as said before, this does not lead, at least up to now, to some measurement.


The corrections necessary to regain information about the structure of the poverty in a group or a country are made by calculating the first or second momentum of the distribution of the poor and comparing this with the distance of the mean value in the poverty sector. So you get information, if the poor are near the threshold and if there are many very poor or most of them just poor. This information can too be extracted from the income distribution by regarding more than one threshold.


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Concepts of Measuring Child Poverty

Comparison of poverty rates between states and within states

- The between states comparison compares inequalities and not real living conditions
- Within state comparison to some extent ignores regional differences in income and price level
- The dilemma: synchronous comparisons do not compare general living conditions but can show the relative living conditions of different groups
- Poverty rates are useful to monitor development in time at different places


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Concepts of Measuring Child Poverty

The Deprivation Concept


- Poverty as a multidimensional phenomenon
- The poverty circle: Causes and effects are indistinguishable on the long run
- Defining dimension for a minimum culturally normal life: Is there something like a “Minimum for the cultural normal life”?
- Townsend and his successors

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Many statements on poverty and definitions of poverty content that it should be a multidimensional concept. Multidimensional means, that you are oriented not only to one possible cause but to the whole spectrum of circumstances in the material, social and cultural life conditions. Therefore one talks in this cases of direct measures, whereas the income measures are taken as indirect indicators. Naturally the direct measurement approach is much more normative. It implies fixed ideas about what is culturally and socially the minimum of resources and what are the relevant dimensions for taking part in a human way in social life. On the other hand it avoids the strong assumption of fully monetarized living conditions lying in the background of the income measurement method.

We regard the deprivation index approach not as some instrument which puts poverty away from a resource lack definition as it is sometimes connoted in critics to the income-oriented poverty approach (“poverty is more than a lack of money” – of course it is, but in most cases this is the core of it). But it may give the opportunity to measure the lack of resources in a more adequate way, compared to what should be in the disposition of the group considered. Especially concerning children, who normally are no money-earner themselves, the deprivation perspective gives way to an operationalization of poverty fitting the life-circumstances of children under the condition of that society and culture they live in.

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The Department for Work and Pension Concept

- The process of getting the Deprivation Index
- The dimensions of deprivation: Home equipment and activities
 - Questions for the adult
 - At least one week holiday away from home a year
 - At least one meeting with friends outside for drink or meal a month
 - At least two pairs of all weather shoes
 - The home in a decent state of decoration
 - Having a household content insurance
 - Making regular savings of at least 20\$ a month
 - Replace any worn out furniture
 - Replace broken apparatuses n the household soon
 - Having leisure activities

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The Deprivation Index has a long tradition, originating from works on basic nutritional means and clothes in Rowntree’s work since the beginning of the 20th century and from the

calculations of the poverty line done by Orchansky at the end of the fifties in USA. In a highly developed form fitting to modern living conditions it was perhaps the first time elaborated and used by Townsend (1979, 1987). Concerning the capability of indicating poverty the main problem, which of course is systematically inherent to deprivation approaches, is the summation of indicator scores about a broad range of items from economic, social and cultural dimensions to a single value. Different values may represent very different kinds of deprivations. But of course, this abstraction is inevitably connected with the concept of poverty.

The process of developing a new DI therefore could go back to a long tradition, when it was initiated by the UK-government by the aim, to eradicate child poverty within the next twenty years. This aim was pronounced by Tony Blair In 1999 and it led to the broad discussion for the establishing of a child specific measure of poverty, based on deprivations which inhibit the thriving of children. The expert discussion, organized by the DWP, got to an end in 2003. The questions for this new DI were incorporated in the Family Resources Survey (FRS) which should control the political progress in eradicating child poverty in UK. The election of questions could take advantage of the broad tradition of deprivation research in UK since Townsend. So The Poverty and Social Exclusion Survey of Britain from 1999 included 54 questions aiming to deprivation. A similar set of deprivation questions had been used in the survey "Breadline Britain" in the beginning 80's (Mack/ Lansley 1985).


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Concepts of Measuring Child Poverty


The Department for Work and Pension Concept

- The questions of deprivation for the child
 - Family holidays with the child/ at least a week a year
 - Enough bedrooms for all children
 - Leisure equipment e.g. for sports
 - Celebrations on special occasions for the child
 - Can the child go to swim at least once a month
 - Does it do some leisure activity
 - Are there friends coming to the child's home for tea etc. at least once a fortnight
 - The child goes to a toddler group etc. once a week
 - The child takes part in school excursions
 - The child has a save place to play outside near home

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Here we give you the topics of the question leading to the child-specific deprivation index. To answer this questions, the mother is asked to give two information. First she is asked, if she or the child has the thing or does the activity in question. If not, she should say, if the family doesn't want it or if it cannot be afforded. By this, contrary to the traditional DI, only enforced lack of goods or activities is counted in the DI, if it is not present in the household. Though this "enforced lack" approach is contested in the literature (McKay 2004) it seems very suggesting to give more reliable results than the pure "lack-approach" as it takes into account the high degree of individualization even in the lower stratums.


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The Department for Work and Pension Concept

- The Index is a summary index
- The single indicators are weighted by the prevalence
- The index is combined with the income measure: 70% of new OECD equivalence income median
- The final index is the combination of low income and DI
- This instrument seems suitable for a separated consideration of child poverty

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The second characteristic is the weighting procedure for the singles items. This is done by the likelihood of being possessed or done in the sample-population. It is not the subjective meaning about the importance but the objective importance in the specific society used for weighting.

The combination of the two approaches – forced lack and objective prevalence - had been strongly favored and advanced by Nolan. (Nolan/ Whelan 1995) It takes all families in precarious living conditions as the basic sample for deprivation counts. So one avoids to include families in deprivation, when this results mainly from idiosyncratic forms of lifestyle instead of material poverty. The summation is done by summing up the probability of the item being represented in the basic population.

In Germany the deprivation approach has been elaborated by Andress and collaborators starting form the works of Muffels (1993). They have concentrated on the combination of subjective utterances about the necessity of certain goods and not on the prevalence in the basic population. The necessity however is probably highly correlated with the answer: We do not need it. Therefore in our opinion preference is to be given to weighting with the prevalence. Nevertheless for more elaborated research on child poverty in Germany, the work of Andress and collaborators should in our opinion be taken as starting point.

Concepts of Measuring Child Poverty

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